



Elements of Convergence Between the National and the Global: Regulating Remote Sensing Space Systems in Canada

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What I Want To Talk About

- The Remote Sensing Space Systems Act (RSSSA)
- Krasner's Regime Theory and Convergence
- The Importance of Linking the National to the International
- The Canadian Example (The One I am Most Familiar With)
- The Art of the Possible: Different Countries, Different Approaches (Legal/Regulatory, Policy, Administrative, Ad Hoc)

Historical Background of RSSSA

- Significant advances in civil, private and military satellite remote sensing in Canada and the shift of space operations from government to the private sector, beginning with the RADARSAT-2 program in 1998, raised national security, defense and foreign policy concerns.
- To ensure that security concerns were addressed, Canada's Access Control Policy was announced in the following year in 1999.
- In 2003, Canada initiated the drafting of new legislation, the *Remote Sensing Space Systems Act* (RSSSA), which received Royal Assent in 2006 and entered into force in 2007.
- The Act was jointly sponsored by the Minister of Foreign Affairs, the Minister of Public Safety and Emergency Preparedness, the Minister of National Defence and the Minister of Industry.

The RSSSA at DFATD

The decision to place responsibility for the *Remote Sensing Space Systems Act* within DFATD was made by Cabinet as it was considered that DFATD:

- would effectively balance Canada's national security and commercial interests as the Minister has a mandate for both security and international trade;
- would not present real or perceived conflicts of interest as DFATD does not operate satellite systems;
- is responsible for the coordination of Canada's international activities, and,
- fit under the DFATD mandate as the regulation of remote sensing space systems and the data that they produce is a non-proliferation as well as an export control activity.

RSSSA

- The legislation is aimed at protecting Canada's national security, national defence and foreign policy interests, while supporting our continued leadership in the provision of satellite remote sensing data and services to government and private sector clients.
- The RSSSA establishes a licensing regime for remote sensing space systems and provides for restrictions on the distribution of data gathered by these systems.

RSSSA

- Applicants must make a commitment to eventually dispose of the satellite system, according to international norms.
- The Act defines a compliance regime that includes criminal offences, violations and alternate compliance agreements.
- The Act also specifies the powers for inspectors and compliance officers within Canada.

Remote Sensing Space System Regulations

- The *Remote Sensing Space System Regulations* contains the procedural details for the administration of the Act.
- It defines the information required for application, amendment and the renewal of licences.
- Command and Data Protection Plans for Controlled Activities are key documents in the regime. Raw Data must be put on offer for the public good.
- The Regulations also specify the records that must be kept or disposed of by the Licensee.

Krasner's Regime Theory

“Implicit or explicit principles, norms, rules or decision-making procedures around which actors' expectations converge in a given area of international relations”

Linking National Regulation to International Commitments

- Key areas:

Authorization

Positive Control

Orbital Debris Mitigation

U.N. Sensed State Principles



Article VI the Outer Space Treaty

“States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, **shall require authorization and continuing supervision by the appropriate State Party to the Treaty**

Implementation in the RSSSA

For this reason, in addition to the requirement for a license to operate a remote sensing system within Canada the prohibition on operating a remote sensing space system without a license applies as well to activities carried on outside of Canada by four categories of Canadians:

- (a) Canadian citizens**
- (b) Permanent residents.** These are people who have legal status entitling them to remain in Canada and generally enjoy most of the rights and responsibilities of Canadian citizens.
- (c) Canadian corporations.** This includes companies with a Canadian charter, i.e. actually incorporated in Canada, as well as companies that have converted their corporate citizenship from another country to federal or provincial jurisdiction within Canada.
- (d) Persons tied to Canada.** This provision allows the government to prescribe classes of persons (individuals, corporations, partnerships etc.) who have a connection to Canada related to remote sensing systems that warrants bringing them within the ambit of the legislation. An example might be foreign persons who procure a launch of a satellite from Canada or foreign persons who are partners in the operation of a Canadian held remote sensing satellite system.

Article VIII of the Outer Space Treaty

“A State Party to the Treaty on whose registry an object launched into outer space is carried **shall retain jurisdiction and control over such object**, and over any personnel thereof, while in outer space or on a celestial body.”

Implementation in the RSSSA

Through the *Remote Sensing Space Systems Act* and the licensing process the Government of Canada can work with licensees (or applicants) to establish appropriate measures for the maintenance of positive control. In so doing Canada's OST commitments are translated in a concrete and definable way into actual space mission design and operations.

Canada's response to this commitment has been to engage in the satellite design process as early as possible in order to assess security requirements and system capabilities and to start a dialogue on setting appropriate information security measures to ensure that positive control of the spacecraft can be maintained.

Orbital Debris Mitigation

Canada has taken the Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines seriously and it was in full consideration of these Guidelines that the requirement for a system disposal plan to be included in any license application was introduced into the *Remote Sensing Space Systems Act*.

Orbital Debris Mitigation Implementation in the RSSSA

Establishing effective means of positive control of a spacecraft throughout its mission-life also will affect, hopefully, the end of the mission and the safe and effective deorbiting/disposal of the spacecraft with a concomitant reduction of the risk of further exacerbating the problem of orbital debris.

No license will be issued without (a) a system disposal plan approved by the Minister and (b) a suitable guarantee that the licensee will perform its obligations under the plan. Detailed requirements for system disposal plans are set out in the *Remote Sensing Space System Regulations*.

Consciousness-Raising!!

U.N. Sensed State Principles

The Act includes within it specific reference to the U.N. Sensed State Principles.

Principle XII states,

“As soon as the primary data and the process data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on reasonable cost terms. The sensed State shall also have access to the available analysed information concerning the territory under its jurisdiction in the possession of any State participating in remote sensing activities on the same basis and terms, taking particularly into account needs and interests of developing countries.”

- In particular Principle XII of United Nations Resolution 41/65, *Principles Relating to the Remote Sensing of the Earth from Space* , adopted on 3 December, 1986
- <http://laws-lois.justice.gc.ca/eng/acts/R-5.4/page-3.html#docCont>

U.N. Sensed State Principles Implementation in the RSSSA

- Section 8 (4) (c) of the Act states, “that raw data and remote sensing products from the system about the territory of any country — but not including data or products that have been enhanced or to which some value has been added — be made available to the government of that country within a reasonable time, on reasonable terms and for so long as the data or products have not been disposed of, but subject to any licence conditions under subsection (6) or (7) applicable to their communication or provision.” This provision derives from Principle XII of United Nations Resolution 41/65, adopted on 3 December 1986, which gives sensed states access to certain data concerning their country

Convergence

INTERNATIONAL/GLOBAL NORMS, RULES, PRINCIPLES

NATIONAL LAW, REGULATION, POLICY, PROCEDURES



The Art of the Possible: Different Countries, Different Approaches

- Technology Maturity and Legal/Policy Maturity
- So What? – Work at the Global-Level Needs to be Implemented at the National-Level
- A Patchwork of Promise
- Convergence is an evolutionary process but it is important to be moving in the right direction.

THANK YOU

